

AMENDMENTS TO THE CLAIMS:

Pursuant to the revised 37 CFR § 1.121, the following listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-32. (Canceled)

33. (Currently Amended) A monocyte-derived dendritic cell that differentiated antigen presenting cell (APC), which differentiated APC expresses substantially less CD1a cell surface marker than a conventional dendritic cell and substantially lacks CD14 surface marker expression.

34. (Canceled) **limitations of claim 34 have been incorporated into claim 33**

35. (Currently Amended) The monocyte-derived dendritic cell differentiated APC of claim 33 34, wherein the monocyte-derived dendritic cell comprises one or more of the following characteristics: substantially lacks IL-12 production, induces or promotes Th0 and/or Th2 T cell differentiation, and exhibits increased IL-10 production, as compared to a conventional dendritic cell.

36. (Canceled)

37. (Currently Amended) The monocyte-derived dendritic cell differentiated APC of claim 33 34, wherein the monocyte-derived dendritic cell is produced by culturing a population of monocytes in interleukin-4 (IL-4), granulocyte macrophage colony stimulating factor (GM-CSF), and a culture medium comprising Iscove's Modified Dulbecco's Medium (IMDM) supplemented with insulin, transferrin, linoleic acid, oleic acid and palmitic acid.

38. (Currently Amended) The monocyte-derived dendritic cell differentiated APC of claim 37, wherein the culture medium comprises Yssel's medium.

39. (Currently Amended) The monocyte-derived dendritic cell differentiated APC of claim 37, wherein the monocyte-derived dendritic cell comprises one or more of the

following characteristics: substantially lacks IL-12 production, induces or promotes Th0 or Th2 T cell differentiation, substantially lacks CD1a surface marker expression, and exhibits substantially increased IL-10 production, as compared to a dendritic cell produced by culturing a population of peripheral blood or bone marrow mononuclear cells in IL-4, GM-CSF, and a culture medium comprising RPMI.

40. (Currently Amended) The monocyte-derived dendritic cell differentiated APC of claim 37, wherein the monocyte-derived dendritic cell comprises an mDC2.

41. (Currently Amended) The monocyte-derived dendritic cell differentiated APC of claim 37, wherein the monocyte-derived dendritic cell has a transfection efficiency greater than that of a dendritic cell produced by culturing a population of monocytes in IL-4, GM-CSF, and a culture medium comprising RPMI.

42-51. (Canceled)

52. (Currently Amended) A composition comprising a population of dendritic cells that substantially lack expression of CD1a and CD14 surface markers and a carrier, said dendritic cells comprising at least one of the following characteristics: substantially lacking interleukin-12 (IL-12) production, substantially lacking CD1a surface marker expression, exhibiting increased IL-10 production, and inducing or promoting T cell differentiation to Th0 or Th2 subtype, as compared to a conventional dendritic cell.

53. (Previously Presented) The composition of claim 52, wherein said dendritic cells are capable of presenting an antigen to a T cell.

54. (Previously Presented) The composition of claim 52, wherein said dendritic cells produce substantially less or no IL-12 and express substantially less CD1a surface marker, as compared to conventional dendritic cells.

55. (Previously Presented) The composition of claim 52, wherein said dendritic cells promote differentiation of T cells to a Th0/Th2 subtype and produce substantially less IL-12, as compared to conventional dendritic cells.

56. (Previously Presented) The composition of claim 52, wherein said dendritic cells display or present at least one antigen or antigenic fragment thereof.

57. (Currently Amended) The composition of claim 56, wherein the at least one antigen or antigenic fragment comprises a tumor antigen, bacterial antigen, parasite antigen, viral antigen, or autoantigen ~~a protein or peptide derived from a protein or peptide that is differentially expressed on a cell selected from the group consisting of a tumor cell, a bacterially infected cell, a parasitically infected cell, a virally infected cell, and a target cell of an autoimmune response~~.

58. (Canceled)

59. (Currently Amended) The composition of claim 52, wherein the composition is a pharmaceutical composition and the carrier is further comprising a pharmaceutically acceptable carrier.

60-67. (Canceled)

68. (Currently Amended) A monocyte-derived dendritic cell that does not substantially express CD1a and CD14 surface markers, wherein the monocyte-derived dendritic cell comprises one or more of the following characteristics: ~~does not substantially express CD1a cell marker~~, substantially lacks IL-12 production, exhibits increased IL-10 production, and promotes increased differentiation of T cells to Th0 and/or Th2 Th1 cells, as compared to a conventional dendritic cell.

69. (Canceled)

70. (Currently Amended) A population of monocyte-derived dendritic cells produced by culturing a population of monocyte cells in interleukin-4 (IL-4), granulocyte macrophage colony stimulating factor (GM-CSF), and a culture medium comprising insulin, transferrin, linoleic acid, oleic acid, and palmitic acid, the monocyte-derived dendritic cells comprising an altered cytokine profile compared to expressing substantially less CD1a surface marker than conventional dendritic cells, substantially lacking expression of CD14 surface marker

and having a cytokine profile that differs from the cytokine profile of dendritic cells produced by culturing a population of monocyte cells in IL-4, GM-CSF, and a culture medium comprising RPMI.

71. (Currently Amended) The population of monocyte-derived dendritic cells of claim 70, wherein said monocyte-derived dendritic cells comprise two ~~one~~ or more of the following characteristics: produce substantially less interleukin-12 (IL-12), produce substantially more IL-10, ~~express less CD1a cell surface marker~~, and induce or promote increased T cell differentiation to Th0 or Th2 subtype, as compared to a population of dendritic cells produced by culturing a population of monocyte cells in IL-4, GM-CSF, and a culture medium comprising RPMI.

72. (Currently Amended) A population of dendritic cells produced by culturing a population of peripheral blood or bone marrow mononuclear cells in interleukin-4 (IL-4), granulocyte macrophage colony stimulating factor (GM-CSF), and Yssel's culture medium, wherein said dendritic cells do not substantially express CD1a and CD14 surface markers and exhibit one or more of the following characteristics: substantially lack interleukin-12 (IL-12) production, ~~express less CD1a cell surface marker~~, induce or promote increased T cell differentiation to Th0 or Th2 subtype, and exhibit substantially increased IL-10 production, as compared to dendritic cells produced by culturing a population of monocyte cells in IL-4, GM-CSF, and a culture medium comprising RPMI.

73. (Currently Amended) A ~~vaccine~~ composition comprising at least one dendritic cell, wherein said at least one dendritic cell does not substantially express CD1a and CD14 surface markers and comprises one or more of the following characteristics: produces substantially less interleukin-12 (IL-12), produces substantially more IL-10, ~~express substantially less CD1a cell surface marker~~, and induces or promotes increased T cell differentiation to Th0 or Th2 subtype, as compared to a conventional dendritic cell.

74. (Currently Amended) The ~~vaccine~~ composition of claim 73, wherein the at least one dendritic cell displays or presents at least one antigen or immunogenic peptide on its surface.

75. (Currently Amended) The ~~vaccine~~ composition of claim 73, wherein the

composition is a pharmaceutical composition further comprising a pharmaceutically acceptable carrier or an adjuvant.

76. (Currently Amended) The ~~vaccine~~ composition of claim 73, wherein said ~~vaccine~~ composition is useful for prophylactic or therapeutic treatment of cancer.

77-78. (Canceled)

79. (New) The monocyte-derived dendritic cell of claim 33, wherein the monocyte-derived dendritic cell expresses CD83 surface marker.

80. (New) The monocyte-derived dendritic cell of claim 33, wherein the monocyte-derived dendritic cell expresses at least one surface marker selected from the group of CD11c, CD33, and CD13 in an amount comparable to that of a conventional dendritic cell.

81. (New) The composition of claim 52, wherein the dendritic cells express CD83 surface marker.

82. (New) The composition of claim 52, wherein the dendritic cells express at least one surface marker selected from the group of CD11c, CD33, and CD13 in an amount comparable to that of a conventional dendritic cell.

83. (New) The composition of claim 82, wherein the dendritic cells substantially express CD83 surface marker.

84. (New) The monocyte-derived dendritic cell of claim 68, which monocyte-derived dendritic cell substantially expresses CD83 surface marker.

85. (New) The composition of claim 73, wherein said at least one dendritic cell expresses at least one surface marker selected from group of CD11c, CD13, and CD33 in an amount comparable to that expressed by a conventional dendritic cell.

86. (New) The composition of claim 73, where said at least one dendritic cell substantially expresses CD83 surface marker.

87. (New) The composition of claim 73, wherein said at least one dendritic cell induces production of interleukin-6 (IL-6) or interleukin-8 (IL-8) in an amount comparable to that induced by a conventional dendritic cell.

88. (New) An isolated or purified population of monocyte-derived dendritic cells that express substantially less CD1a surface marker than a conventional dendritic cell and are substantially devoid of expression of CD14 surface marker.

89. (New) The population of monocyte-derived dendritic cells of claim 88, wherein the monocyte-derived dendritic cells express at least one surface marker selected from the group of CD11c, CD33, and CD13 in an amount comparable to that expressed by a conventional dendritic cell.

90. (New) The population of monocyte-derived dendritic cells of claim 88, wherein the monocyte-derived dendritic cells substantially express CD83 surface marker.

91. (New) The population of monocyte-derived dendritic cells of claim 89, wherein the monocyte-derived dendritic cells express CD11c surface marker in an amount comparable to that expressed by a conventional dendritic cell.

92. (New) The population of monocyte-derived dendritic cells of claim 89, wherein the monocyte-derived dendritic cells express CD13 and CD33 surface markers in an amount comparable to that expressed by a conventional dendritic cell.

93. (New) The population of monocyte-derived dendritic cells of claim 89, the monocyte-derived dendritic cells that do not substantially express CD1a and CD14 surface markers and substantially express CD11c⁺, CD13⁺, and CD33⁺ surface markers.

94. (New) The population of monocyte-derived dendritic cells of claim 93, the monocyte-derived dendritic cells that do not substantially express CD1a and CD14 surface markers and substantially express CD11c⁺, CD13⁺, CD33⁺, and CD83⁺ surface markers.

95. (New) An isolated or purified population of dendritic cells that express substantially less CD1a surface marker than a conventional dendritic cell and substantially express CD83 surface marker.

96. (New) The population of dendritic cells of claim 95, wherein said dendritic cells further express at least one of CD11c, CD13, and CD33 surface markers and comprise monocyte-derived dendritic cells having at least one of the following characteristics: substantially lacking IL-12 production, inducing increased Th0 and/or Th2 T cell differentiation, and exhibiting increased IL-10 production, as compared to conventional dendritic cells.

97. (New) A pharmaceutical composition comprising the population of dendritic cells of claim 95.